

09/1914475

(12) DEMANDE INTERNATIONALE PUBLIÉE EN VERTU DU TRAITÉ DE COOPÉRATION
EN MATIÈRE DE BREVETS (PCT)

(19) Organisation Mondiale de la Propriété
Intellectuelle
Bureau international



RECEIVED

JUN - 5 2002

TECHNOLOGY CENTER R3700

(43) Date de la publication internationale
12 juillet 2001 (12.07.2001)

PCT

(10) Numéro de publication internationale

WO 01/50079 A3

(51) Classification internationale des brevets⁷ : F28D 1/03,
F28F 9/02

(21) Numéro de la demande internationale :
PCT/FR00/03630

(22) Date de dépôt international :
21 décembre 2000 (21.12.2000)

(25) Langue de dépôt : français

(26) Langue de publication : français

(30) Données relatives à la priorité :
99/16668 29 décembre 1999 (29.12.1999) FR

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(81) États désignés (national) : DE, JP, US.

Publiée :

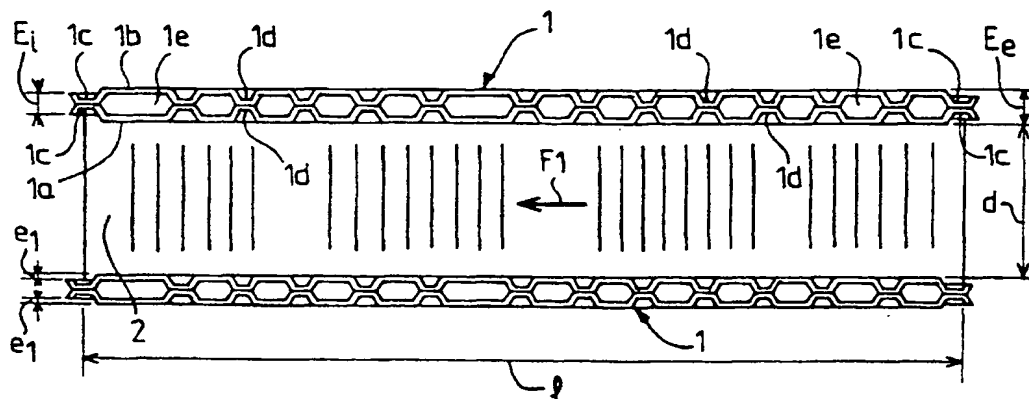
— avec rapport de recherche internationale

(88) Date de publication du rapport de recherche
internationale: 14 février 2002

[Suite sur la page suivante]

(54) Title: EVAPORATOR CONSISTING OF STACKED FLAT TUBES HAVING TWO OPPOSITE FLUID BOXES

(54) Titre : EVAPORATEUR A TUBES PLATS EMPILES POSSEDANT DEUX BOITES A FLUIDE OPPOSEES



(57) Abstract: The invention concerns an evaporation unit for a heat exchanger between an air flow and a refrigerating fluid, comprising an array consisting of a single row of flat tubes (1) alternately stacked with corrugated spacers (2) retaining the tubes mutually spaced apart by a distance *d* and whereof the undulations define passages for the air flow in the direction of the tube (1) width, the two ends of each tube (1) respectively communicating with the two fluid boxes (31, 32) located opposite each other relative to the array, so as to define for the refrigerating fluid, in the evaporator, a path for at least two passages. The invention is characterised in that the dimension *l* of the evaporator in said direction ranges between 20 and 55 mm and the distance *d* ranges between 4.0 and 7.6 mm.

(57) Abrégé : Evaporateur pour l'échange de chaleur entre un flux d'air et un fluide réfrigérant, comprenant un faisceau composé d'une rangée unique de tubes plats (1) empilés en alternance avec des intercalaires ondulés (2) maintenant les tubes (1) écartés les uns des autres d'une distance "*d*" et dont les ondulations définissent des passages pour le flux d'air dans la direction de la largeur des tubes (1), les deux extrémités de chaque tube (1) communiquant respectivement avec deux boîtes à fluide (31, 32) situées à l'opposé l'une de l'autre par rapport audit faisceau, de manière à définir pour le fluide réfrigérant, dans l'évaporateur, un trajet en au moins deux passes. Selon l'invention, la dimension "*l*" de l'évaporateur dans ladite direction est comprise entre 20 et 55 mm et la distance "*d*" est comprise entre 4,0 et 7,6 mm.

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En ce qui concerne les codes à deux lettres et autres abréviations, se référer aux "Notes explicatives relatives aux codes et abréviations" figurant au début de chaque numéro ordinaire de la Gazette du PCT.

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/FR 00/03630

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F28D1/03 F28F9/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 F28D F28F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	DE 36 06 253 A (SHOWA ALUMINIUM CO LTD) 6 November 1986 (1986-11-06) page 3, paragraph 1; figure 5	1,2,5,7, 16
Y	GB 1 497 935 A (CHAUSSON USINES SA) 12 January 1978 (1978-01-12) the whole document	1,2,5,7, 16
A	US 5 311 935 A (FUKUOKA MIKIO ET AL) 17 May 1994 (1994-05-17) abstract column 3, line 10 - line 41; figures 1,3 column 4, line 16 - line 25; figure 8B	1-4,6,8, 13
A	EP 0 704 667 A (ZEXEL CORP) 3 April 1996 (1996-04-03) abstract; figures 1-13	9,10,12

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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

18 July 2001

Date of mailing of the international search report

25/07/2001

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INTERNATIONAL SEARCH REPORT

In ternational Application No
PCT/FR 00/03630

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 196 17 169 A (VALEO KLIMATECHNIK GMBH & CO K) 6 November 1997 (1997-11-06) abstract; figures 1,2 ----	11
A	US 2 878 656 A (STANLEY A. DOMAL) 24 March 1959 (1959-03-24) figure 3 ----	14
A	EP 0 843 146 A (CALSONIC CORP) 20 May 1998 (1998-05-20) abstract; figures -----	15